## ABSTRACT OF THE DISCLOSURE

A malfunction of a thermostat in a coolant circulating path is detected from an engine side coolant temperature in consideration of the following behavior of the coolant When an open-malfunction occurs, the coolant temperature. temperature becomes different considerably from that in the normal time in the temperature range in which the thermostat is to be normally closed. When a closure-malfunction occurs, the coolant temperature becomes different considerably from that during the normal time in the temperature range in which the thermostat is to be normally opened. Alternatively, the malfunction may be detected from a difference between the engine side coolant temperature and a radiator side coolant temperature.